

- 1. The Nobel Prize in Chemistry 2020 awarded jointly to Emmanuelle Charpentier and Jennifer A. Doudna "For the development of a method for genome editing."
- Note: Jennifer A. Doudna and Emmanuelle Charpentier have discovered one of gene technology's sharpest tools: the CRISPR/Cas9 genetic scissors. Using this method, researchers can change the DNA of animals, plants and microorganisms with extremely high precision. This is contributing to new cancer therapies and may make the dream of curing inherited diseases come true.
- **Genome editing**, or genome engineering, or gene editing, is a type of genetic engineering in which DNA is inserted, deleted, modified or replaced in the genome of a living organism.
- **CRISPR-Cas9** (Clustered regularly interspaced short palindromic repeats and CRISPR-associated protein 9). The CRISPR-Cas9 system has generated a lot of excitement in the scientific community because it is faster, cheaper, accurate, and efficient than other existing genome editing methods.
- 2. Cabinet ratifies ban on seven chemicals that are hazardous to health & environment listed under Stockholm Convention.
- MoEFCC (The Ministry of Environment, Forest and Climate Change) ratifies ban on seven Persistent Organic Pollutants (POP's) listed under Stockholm Convention. These are (i) Chlordecone, (ii) Hexabromobiphenyl, (iii) Hexabromodiphenyl ether and Heptabromodiphenylether (Commercial octa-BDE), (iv) Tetrabromodiphenyl ether and Pentabromodiphenyl ether (Commercial penta-BDE), (v) Pentachlorobenzene, (vi) Hexabromocyclododecane, and (vii) Hexachlorobutadiene
- Exposure to POPs can lead to cancer, damage to central & peripheral nervous systems, diseases of immune system, reproductive disorders and interference with normal infant and child development.



• **Note:** The **Stockholm Convention** is a global environmental treaty to protect human health and environment from POPs (Persistent Organic Pollutants), which are identified chemical substances that persist in the environment, bio-accumulate in living organisms, adversely affect human health/ environment. The purpose of is to eliminate or restrict the production and use of persistent organic pollutants.

#### • Facts:

**Signed:** 22 May 2001

**Location:** Stockholm, Sweden

# 3. 13th Aero India-21 to be held in Bengaluru in Feb 2021: Defence Minister Rajnath Singh

• **Note:** An air show is a public event where aircraft are exhibited. Show often includes aerobatics demonstrations.

# 4. India and Myanmar agree to work towards operationalization of Sittwe Port in first quarter of 2021

• **Note:** Sittwe Port is a deepwater port constructed by India in 2016 at Sittwe, the capital of Rakhine State in Myanmar, on the Bay of Bengal.

### • Facts about Myanmar:

**Capital:** Naypyitaw

**President:** Win Myint

**India shares** a 1,643-km-long border with Myanmar which touches Arunachal Pradesh, Nagaland, Manipur and Mizoram.

## 5. Union Minister Dr Harsh Vardhan chairs 5th Special Session of the WHO Executive Board.

 The purpose of the meeting focuses on the measures necessary to ensure the full and effective implementation of the terms of resolution WHA 73.1 on COVID-19 response. www.gradeup.co

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• The resolution WHA 73.1 titled "COVID-19 response" was co-sponsored by more than 130 countries and calls for the intensification of efforts to control the pandemic and for equitable access to and fair distribution of all essential health technologies and products to combat the virus.

• Note: World Health Organization (WHO) is a specialized agency of the United Nations (UN) responsible for international public health. The WHO Constitution, which establishes the agency's governing structure and principles, states its main objective as "the attainment by all peoples of the highest possible level of health.

#### • Facts:

**Headquarters:** Geneva, Switzerland

**Founded:** 7 April 1948

**Head:** Tedros Adhanom (Director-General), Soumya Swaminathan (Deputy Director-General), Jane Ellison (Deputy Director-General)

• As of 2020, the WHO has 194 member states

• India joined WHO on 12 January 1948.

6. Asian Development Bank (ADB) to invest \$15 Million in Avaada Energy to Expand Renewable Energy Capacity in India

• "The project supports to India's renewable energy sector and will help the Government of India meet its targets for clean power generation".

• **Note:** The Asian Development Bank (ADB) is a regional development bank. Its purpose is for economic development of members countries.

#### • Facts:

**Headquarters:** Mandaluyong, Philippines

**President:** Masatsugu Asakawa

**Founded:** 19 December 1966

**Membership:** 68 countries

7. Renaming of Naugarh Railway Station to Siddharthnagar



 Railway Minister Piyush Goyal inaugurated the renaming of Naugarh railway station to Siddharthnagar situated at Siddharthnagar district in Uttar Pradesh.

## 8. My Ganga My Dolphin campaign launched at six sites across river Ganga.

The ecotourism programme was started in six sites across the states of Uttar Pradesh, Bihar and West Bengal. The National Mission for Clean Ganga, the Wildlife Institute of India and the Forest Department launched the My Ganga My Dolphin campaign on the occasion of 'Ganga River Dolphin Day October 5'.

**Note: Status of Conservation:** 

- First Schedule of the Indian Wildlife (Protection), Act 1972.
- Endangered by the (IUCN) International Union for the Conservation of Nature.
- Appendix I (most endangered) of the (CITES) Convention on International Trade in Endangered Species.
- Appendix II (migratory species that need conservation and management or would significantly benefit from international co-operation) of the (CMS) Convention on Migratory Species.

There are four freshwater dolphins in the world:

(i) Ganga River Dolphin (Platanista Gangetica)

The **Ganges river dolphin** is found in parts of the Ganges-Meghna-Brahmaputra and Karnaphuli-Sangu river systems in India, Bangladesh and Nepal. The Gangetic river dolphin is India's **national aquatic animal** and known as **'Susu'**.

- (ii) The 'Baiji' now likely extinct from the Yangtze River in China,
- (iii) The 'Bhulan' of the Indus in Pakistan,
- (iv) The 'Boto' of the Amazon River in Latin America.
- 9. Indian Air Force Day: 8th October

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• The Indian Air Force, also known as Bhartiya Vayu Sena, was officially established by the British Empire, as India was under the rule of Britishers at that time. The Indian Air Force (IAF) is the air arm of the three Indian armed forces, and their primary mission was to secure the Indian airspace and conduct aerial activities during the times of conflict.

#### • Facts:

**Founded:** 8 October 1932

**Motto:** "Glory that touches the sky"

Chief of the Air Staff: Air Chief Marshal Rakesh Kumar Singh Bhadauria

## 10. Dinesh Kumar Khara Appointed as new Chairman of SBI

 The government appointed senior banker Dinesh Kumar Khara as chairman of the State Bank of India. Mr Khara was appointed as MD (Managing Director) of SBI in August 2016.

• **Note:** State Bank of India is an Indian multinational public sector bank and financial services statutory body. SBI got 236th rank in the Fortune Global 500 list of the world's biggest corporations of 2019.

#### • Facts:

**Headquarters:** Mumbai

Founded: 1 July 1955

# 11. Indian Coast Guard (ICG) Offshore Patrol Vessel 'Vigraha' launched to enhance coastal security

- The offshore patrol vessel (OPVs) of the Indian Coast Guard, 'Vigraha' was formally unveiled at Kattupalli, Tamil Nadu. The vessel is built by Larsen and Toubro.
- **Note:** Offshore Patrol Vessels are long range surface ships, capable of operation in maritime zones of the country including island territories with helicopter operation capabilities.